DESIGN PANEL NO. 43 12-18-97

SYSTEM MANAGEMENT CSCI REDUNDANCY MANAGEMENT CSC Part 1 - Ken Castner

OVERVIEW

Release Notes:

- **The Redundancy Management CSC is being delivered in two drops for Thor. The first drop is scheduled for mid-January and consists of executing SCT APIs for a local computer, and stub SSI APIs. The second drop contains full Thor functionality. This document focuses on the interface definition (APIs) to ensure that other CSCIs can meet their deadlines. Internal design and documentation of that design will be discussed at a second Thor DP3.**

The Redundancy Management CSC monitors, and maintains the health of the RTPS. It does this by monitoring the health of both the software and hardware in the system. *If failures are detected and a recovery mechanism is in place, Redundancy Management implements the recovery*. All failures cause generation of a System Message.

- Thor will be delivered in two parts, an informal drop with group 2 (scheduled for 1/20), with a full drop in Group 8 (4/20).
  - Group 2 Content:
    - Stub APIs for SSI Registration, Heartbeat and Error Reporting
      - The intent is to provide APIs that allow the uses to correctly code their software. These APIs return no data, so stub implementations do not need any functionality underneath.
    - Locally operating APIs for the System Configuration Table.
      - The interfaces will execute and return data from the local copy of the SCT. The local copy will be static unless updated on the local machine through APIs. Any changes made to the local copy through the API will affect the SCT on that processor only.
    - An offline tool to generate the System Configuration Table
      - This will be a Microsoft Access Database. Table editors will be available as will an export routine to make the information available to the processors.
  - Group 8 Content (Full Thor Content):
    - The SCT is maintained across the system.
    - SSI Interfaces function, with data relayed to SI
    - SI reports failures, but takes no action in response to failures
    - Improved Access interface

DESIGN PANEL NO. 43 12-18-97

ACTIONS	ACTIONEE	DUE DATE	STATUS
No actions required			

Approved

DESIGN PANEL NO. 43 12-18-97

CONSOLIDATED SYSTEM GATEWAY SERVICES CSCI - Chau Le and Lisa Valencia

OVERVIEW

The Consolidated Systems (CS) Gateway Services CSCI provides the functionality required to receive and process Integrated Vehicle Health Management (IVHM) Human Exploration and Development of Space (HEDS) Technology Demonstration 1 (HTD-1) data, Ground Measurement System (GMS) data, and Pad Meteorological (Metro) data. This CSCI also provides the functionality required to receive and route HTD commands. The CS Gateway CSCI resides on the Front End Processor Controller within the CS gateway. The CSCI interfaces to the HTD via the SODN when the orbiter is in the OPF or via the Instrumentation T-1 link when the orbiter is at the Pad. The CSCI interfaces to the CSDS Gateway via the LON to receive GMS and Metro data and to transmit HTD Merge data. The CSCI also interfaces to the RTCN to transmit HTD, GMS, and Metro data to the remainder of CLCS through the GCP Services API which is part of the Common Gateway Services CSCI. HTD requirements will be met by the CS Gateway for the Thor delivery. If time permits, GMS and Metro requirements will also be incorporated in Thor, otherwise, they will be deferred until the Atlas delivery. Note: GMS & Metro data are currently available via the Test Data Generator.

ACTIONS	ACTIONEE	DUE DATE	STATUS
Develop a process to document and track the transfer of CS Gateway HTD configuration file from the orbiter upgrades organization to CLCS.	Emilio Valencia	Jan 1998	In work

Approved